LEICA photography

FALL 1949

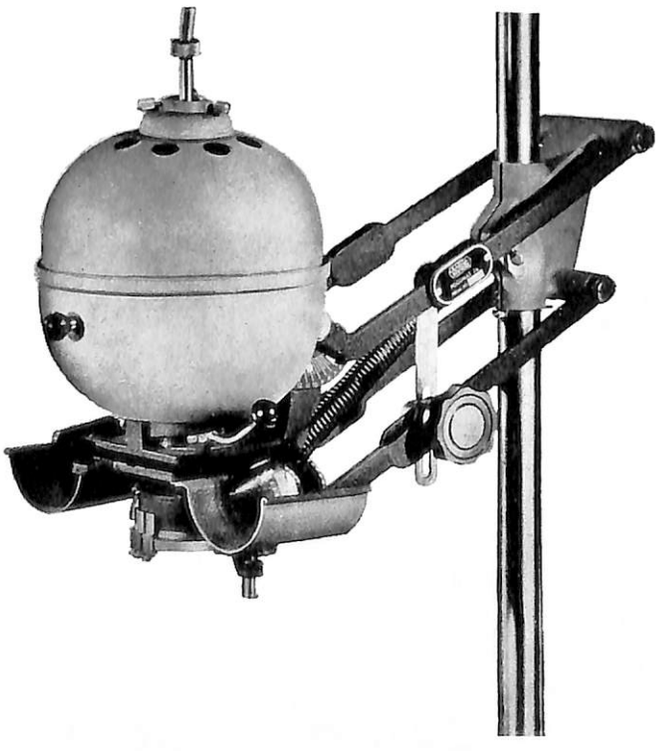
25¢

NO. 7 VOL. 2

"On the contrary, Madame, the Management feels that Master Maurice has composed his Focomat-murals rather ingeniously and sees no necessity for removing the Spanish balcony."

You, too, can have fun with a Focomat even if your menage won't accommodate murals. All Leica Photographers of artistic and scientific sensibilities agree that a Focomat, and only a Focomat can transmute the inherent quality of Leica negatives into glowing pictures of which you can be proud.

The Focomat is the only enlarger, of correct optical and mechanical design, produced specifically for 35mm. work.



Leitz FOCOMAT

E. LEITZ, INC., 304 HUDSON STREET, NEW YORK 13, N. Y.

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IN THIS ISSUE

CAMEO . . . Leica Camera color photograph by Edward Gray; Leica Camera IIIc, Hektor 135mm., coated long-focus lens, 1/60 second at F:6.3, using silvered reflector boards; Kodachrome Film. Four-color plates by Condé Nast, from 16″ x 20″ color print by Evans-Peterson, New York.

LEICA PHOTOGRAPHY is published by E. Leitz, Inc., at 304 Hudson Street, New York 13, N. Y., as a quarterly magazine, price 25 cents. Copies are sent free of charge to all registered Leica Camera owners residing within the United States of America and U. S. Territorial Possessions. A subscription fee of $1.00 per year is charged to non-owners of Leica Cameras in the U. S. A., and $2.00 to owners or non-owners elsewhere. Single copies are on sale at photographic dealers' stores, or direct from the publishers. Advertising rates will be quoted on request, and we reserve the right to select advertisements.

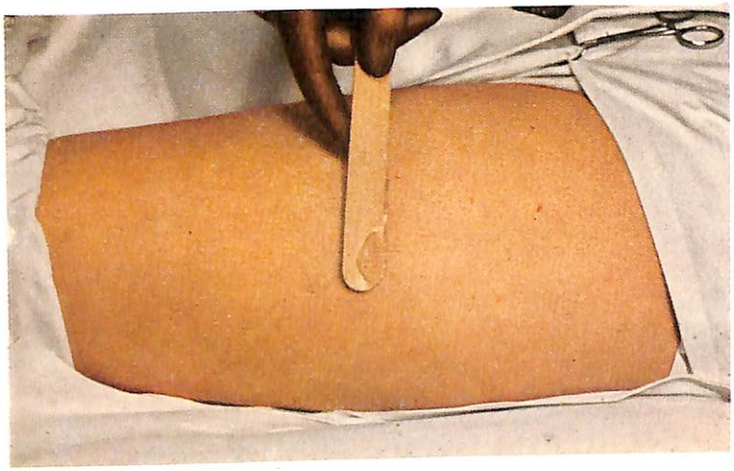
The Editor will be pleased to consider original articles and photographs on Leica Camera photography. All manuscripts should be accompanied by stamped, self-addressed return labels.

EDITED BY THOMAS H. ELWELL, F. R. P. S.

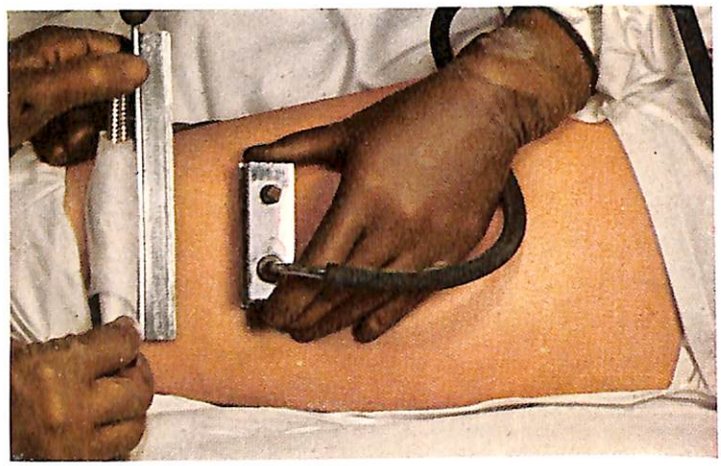
PRINTED BY AMPCO PRINTING CO., INC., NEW YORK

LEICA IN THE OPERATING ROOM

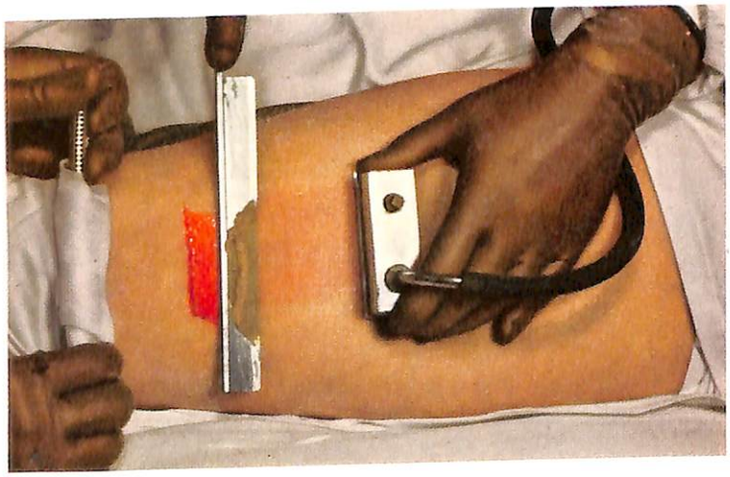
by Dr. Julius Rutzky, New York



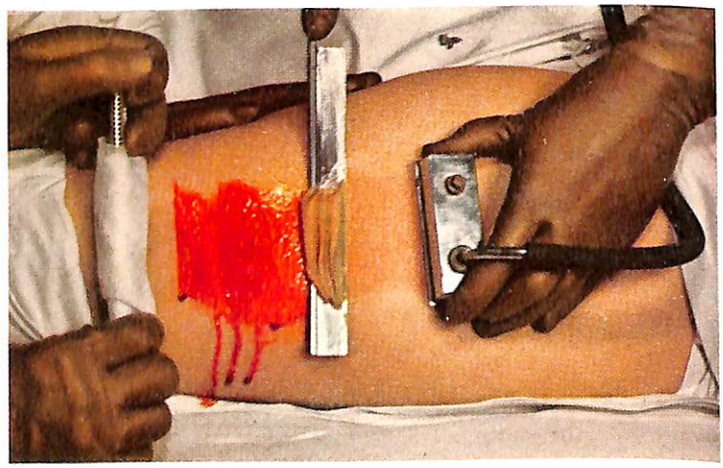
1. The skin of the thigh is lightly lubricated with "Vaseline" applied with a wooden tongue blade.



2. The skin graft knife is held in the surgeon's right hand, with the suction box in the left hand—in advance of the knife edge. The assistant makes counter traction in back of the knife, with a straight edge covered with gauze.

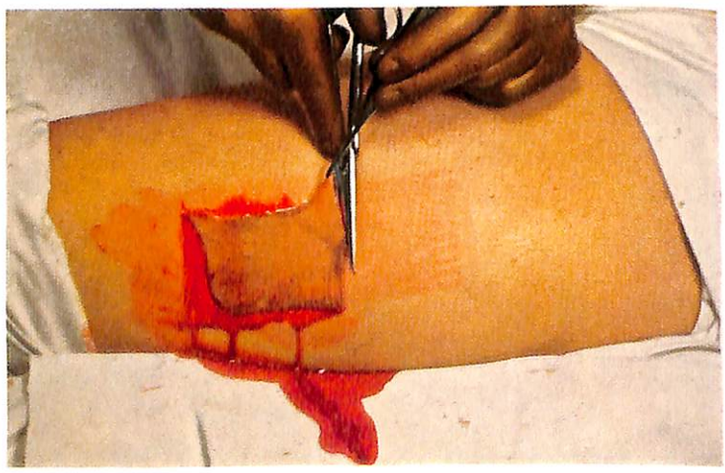


3. While the skin is held taut, the graft is cut with a rapid to and fro slicing motion of the knife.



4. The suction box moves in advance of the knife as the graft is being cut.

5. The graft is reflected, showing the donor area.



6. The graft is separated from its attachment by scissors.

The accompanying illustrations, demonstrating steps in the making of a split-thickness skin graft, were made with a Leica IIIc and Elmar 90mm. long-focus lens, the Imarect Finder, Large Ball Jointed Tripod Head, Adjustable Lens Sunshade, and Cable Release. As there was daylight coming in through a skylight, two No. 2b photo floods were used with daylight Kodachrome Film; the operating lights were not turned off during the exposures of F:9 at 1/10 of a second.

Following World War II, which placed new emphasis on the importance of still photography in the operating room, more and more surgeons have come to demand visual records of their technical procedures, as well as *in situ* pictures of disease processes. Whether for medical publications or for teaching purposes, a photographic slide museum has also become invaluable to those engaged in lecturing or research. Unfortunately, surgery imposes such limitations on photography in the operating room that few cameras can qualify as being fitted for the task.

The Leica user, however, is in an exceptional position to meet the exacting requirements of this highly specialized work, as the need for simple, versatile, soundly engineered equipment – capable of meeting the varying operating room situations and of satisfying the most stringent medical demands for fidelity in reproduction—must necessarily be the first consideration in the selection of camera and accessories. Since surgery moves at a rapid pace, it is seldom appreciated if the photographer prolongs matters by fussing. In this connection, precision range finder focusing, which is surer and quicker than focusing on ground glass, should naturally be given preference whenever possible—always assuming that the view finder being used incorporates a parallax correction device. And wherever the field to be photographed is small, as it usually is in operating room work, long-focus lenses – rather than extension tubes—should be used, for not only is extension tube focusing painfully slow, but it requires that the photographer move his equipment so close as either to be in the sterile field, or at best, to interfere with the surgeons positioned about the table. Also, the stopping down of the lens to secure sufficient depth of field when working at near distances, requires a camera with speeds to one second.

An efficient outfit covering the bulk of operating room assignments would include: any model Leica with slow speeds and an Elmar or Summitar 50mm. lens; a 90mm. Elmar, or 90mm. Leica long-focus lens; an Imarect Finder; a Model VIII, or VIIIa Synchronized Flash Unit; the Large Ball Jointed Tripod Head, and a tall, sturdy tripod; an Adjustable Lens Sunshade and Leica Cable Release. Additional equipment may be added in some such order as, another long-focus lens (such as the 135mm. Hektor), an Omifo reproduction device for the 90mm. lens, and a Nooky—according to preference, or depending upon the requirements of the work.

Excellent black and white pictures can readily be made from 35mm. color slides, but the surpassing advantage of color film in recording clinical material actually leaves one little choice as to emulsions. It is best to use outdoor type Kodachrome Film in the operating room, with, of course, blue bulb illumination—so that any light admitted through the usual window or skylight will affect the film least. With tungsten film, there is an objectionable bluish cast where such daylight illumination is present. Also, it may at times be unwise to turn off the operating lights even for the moment required to take the photograph, and this being the case, the somewhat bluish operating room lights will give less difficulty with daylight color film.

Optimum color values are achieved with light of known color temperature, which generally means bringing one's own lighting. Flash illumination is preferable, but must be prohibited whenever explosive inhalants, such as ether or cyclopropane, are used as anaesthetic agents. Then, even flood illumination must be turned on and off by a specially guarded, spark-free switch. If the operating room is not so equipped, lighting must be controlled by a switch on an extension cord brought outside the operating room; even the slightest possibility of an explosion when a switch is thrown or a flash bulb cracks is too dangerous to be allowed. Flimsy stands or carelessly placed equipment are poor reflections on the photographer, who can provide himself with good flood lighting by firmly taping two or more turned aluminum reflectors to supports already present in the operating room; No. 2 photo floods are generally adequate.

An exposure meter which gives incident light readings is an advantage here, and, if lights are set up before the patient is brought into the operating room, an incident light reading can be taken at the point where the operating field will be. The disadvantage of thrusting a meter over sterile drapes to take a close reading during an operation is thus avoided; in no case is contamination of the surgical field excusable.

As in other photographic assignments, so too, in the operating room, preliminary planning is the difference between a successful venture and mediocre results. For example, knowledge of the operating room layout and the functioning of its personnel is not only helpful, but necessary, if equipment is to be placed in advance without upsetting operating routine. As these conditions vary with each hospital, it is important for the photographer to orient himself in such matters as the extent of the sterile field, position of electric sockets, and the kind of sockets, before the operating room is set up. For reasons already given, the type of anaesthesia to be used should also be known. Familiarity with the operation being attempted, and with the particular desires of the surgeon as to what he wants illustrated, will govern the photographer's choice as to which lenses and accessories are needed.

Operating room photography is an exacting specialty requiring close cooperation between surgeon and photographer. Demands upon the camera are numerous and heavy, but whatever is required of the Leica, it can—and will do.

Vermont Vaca

by Louise Boyle, Ithaca, N. Y.

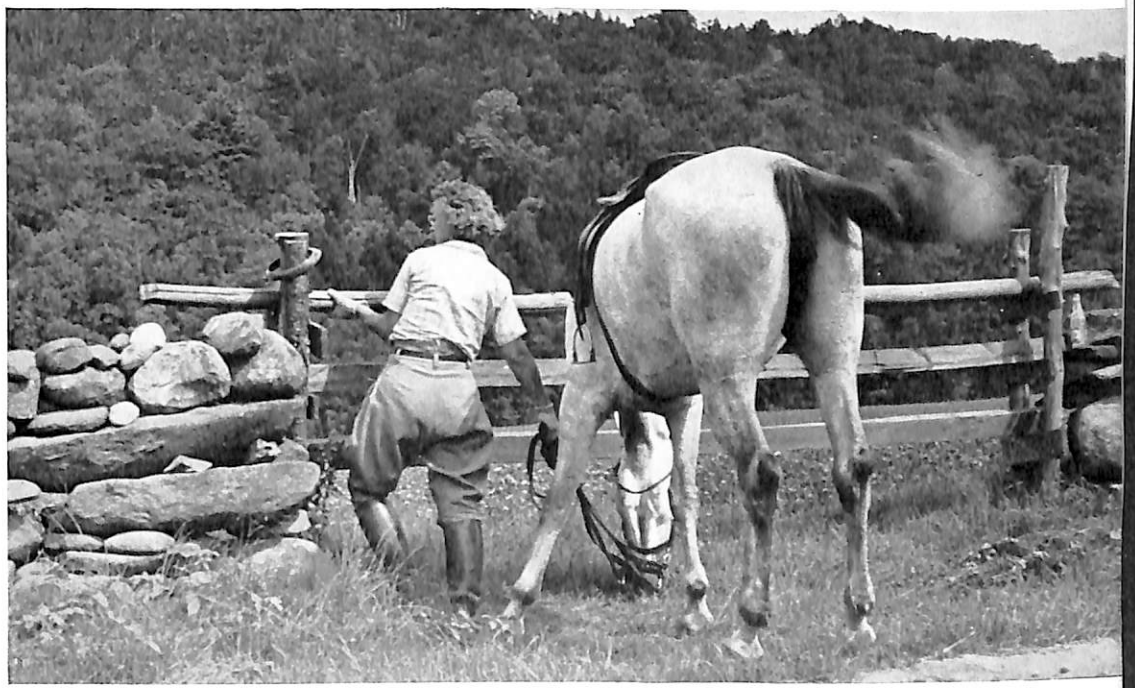
A riding trip through Vermont is one way to turn back the calendar and return to the slow tempo of a peaceful age. The Green Mountain Horse Association has marked a thousand miles of trail, and will supply lists of farm houses and inns where rider and mount may find food and lodging. Twenty to twenty-five miles is the average day's ride. Over back roads and grassy paths, up and down mountains, a walk or trot is the usual gait. The saddle leather creaks, the sun shines, and there is plentiy of time for the rider to see the shape of every leaf, every play of light and shade. What lies around the bend and over the mountain gives suspense to the day. There is a slow unfolding of small delights, a harvest for the quiet eye.

Like a fisherman, the rider-photographer will find that many of the biggest ones get away; I never did get the shot between the horse's ears which is the view dear to every rider. But like the fisherman, too, the smallest catch is an occasion for pride, and, there is always "the next time."

tion

The old craft of horseshoeing shows signs of mechanization—the smith and his son now have a truck for their shop. No longer do the horses go to the smithy—these days the smithy comes to the horses.

The Vermont farmer's directions, if less concise than those of the G. M. H. A., are nevertheless cheerfully given; in turn, the rider is expected to observe the ancient etiquette of the saddle, which permits the opening, demands the closing, of gates.



In the cemeteries of Vermont's quiet little villages may be found Abigail, Persis, Desdemona and Salome, Mehitabel and Caesar, Shadrach and Israel; here the Green Mountain Boys have their homes.

A day's ride brings a rich variety of subjects—landscape, still life, portraits, architecture, genre—and from morning to evening, in dense woods and open meadows, almost every possible variation of light and shade is met with.

Photographic equipment for the trip had to be simple, so along with my Leica I packed the 50 and 90mm. Elmar lenses, the Imarect Finder, an Adjustable Lens Sunshade, exposure meter, and small tripod; from these one can expect a great deal.

The sun-dappled gelding, Tristan, enjoys a brief rest along the trail. A descendant of old Justin Morgan, Tristan is as much a part of Vermont as the birch tree to which he is tethered.

I usually rode with my camera case open, being careful to cover the lens on the rare occasions when the way was dusty, and during uneventful stretches I made it a practice to take meter readings . . .

. . . for, just around the next bend in the road might be that perfect deserted farm house every visitor to Vermont longs for, or better still, the friendly, plain-spoken greeting of the Green Mountain farm woman.

The Miniature Film—Negative Processing and Printing Technique

Part I . . . The Negative

by A. R. Jacobsen, Philadelphia, Pa.

I think the principal reason why miniature photography and the Leica have held me fascinated for so many years is that they present a constant challenge to achieve professional results in pictorial and portrait photography. Other reasons are numerous, but are for the most part reserved for the skeptic who frowns on the use of miniature film and equipment as a professional medium.

In the following paragraphs I have set down some of the negative processing technique which has helped me immeasurably in obtaining success with my Leica.

SELECTING A FILM. There are more than forty types of films being manufactured today, not all of which can be adapted to every kind of photography. Some are specifically designed for particular kinds of work, such as—Photomicrography, Copying, Microfilming, and other specialized jobs. Since the majority of Leica users do pictorial and portrait photography, almost any recognized brand of panchromatic film of medium-speed will give good results. By medium-speed, I mean films with an ASA rating of between 20 and 50. Regardless of which developing agent is employed, the slower panchromatic films have a comparatively greater resolving power and a closer grain, which with proper development will yield a sharper print of finer tonal gradation.

There are times, however, when circumstances necessitate the use of a faster film – where the subject being photographed is poorly lighted, or where very high shutter speeds are required to stop action. Under such conditions, one must be willing to sacrifice the size of the grain and be content with a smaller enlargement. Because this situation is the exception, rather than the rule—choose a slower film, stick to it, learn what it can do, and make it suit your purpose.

FILM EXPOSURE. In the initial stages of experimentation and adjustment, it is essential that your exposures be consistent. Whether they be slightly underexposed or overexposed is not too important at this point, but slight overexposure is more desirable.

Use an exposure meter at all times. One of the photoelectric type is better and much more accurate than any of the calculators or extinction type meters. Aside from its importance in developing the technique of exact time and temperature development, the proper use of an exposure meter is invaluable in getting exactly what you want out of the picture.

FILM DEVELOPMENT. There are many excellent fine-grain developers that will yield good negatives capable of producing enlargements of many magnifications; but just as all films are not suited to one particular purpose, all fine-grain developers are not suited to every type of film.

Since the slower panchromatic films have more contrast than the faster films do, select a developer that is low in contrast yielding characteristics, one that is slow working, or low alkaline (i.e., one that requires a longer period of development in order to build up to a normal contrast).

Although I have occasionally devised concoctions of my own, I am at present using a commercially prepared developer and getting as fine-grained a negative as could be desired.

Distilled water is recommended for the preparation of all photographic solutions, especially developers. City water is usually chlorinated or treated with other chemicals to make it fit for drinking, and very often contains metallic impurities gathered up on its course through pipes and plumbing fixtures. These impurities cause fog in developers. Often too, city water (depending on locale) is highly alkaline and should not be used in preparing fine-grain developers.

There are two general methods of development: the *Regular* method, where the developer is used over and over until exhausted, and the *Replenishment* method, whereby the developer is revitalized by the addition of those elements which have been "played out" in developing successive rolls of film. Of the two methods, I prefer and use the replenishment method because it eliminates the gradual loss of developing energy which results when the regular method is used, and because it also avoids that initial period of high energy encountered when the first few rolls of film are developed in fresh developer.

A rough-and-ready method of replenishment is to add by volume. When, after developing a few rolls of film, a faint gray line appears on the inside of the tank at the former level of the solution, add only enough replenisher to the tank to keep the solution at the original volume.

It has long been proven that oxidation of the developing solution is very harmful and conducive to graininess. If the developer is *poured,* the thin stream carries with it thousands of tiny air bubbles. The only practical way of eliminating aeration is to store the solution in one developing tank, in which the film can be immersed. In order to do this, it is necessary to improvise or purchase such a container.

This developing tank should be acid resisting (glass, stainless steel, or enamel ware), 4½" to 6½" in diameter, and approximately 10" deep. An agitator, which is also necessary, can be fashioned from a length of stainless steel rod of about ⅛" diameter. Bend one end around so that the rod can be slipped through the core of the reel and the reel then supported on the bent end. Three such tanks—one for developing, one for rinsing, and one for fixing – provide the ideal set-up for developing right through to fixation. All steps, of course, are carried out in total darkness.

Continued on next page

Unless a long period of time elapses between the development of each batch of films, it is not necessary to keep the developer in a tightly capped bottle. However, it is important that the tank containing the developing solution be kept in a cool dark place in your darkroom. A plastic shower cap (with an elastic) makes an excellent cover to keep out dust. So much for special equipment.

Almost every miniature photographer who rolls his own film has at least thirty or forty feet of war-surplus or outdated film lying around. Condition your newly made or fresh developer by soaking that much film in it for thirty minutes or so. That will aid in knocking down some of the high energy I mentioned earlier.

Prepare an in-between bath (tank #2) by dissolving 10 grams of chrome alum in 2 quarts of water, to which 10 drops of acetic acid (glacial) have been added. This bath serves as a hardener and also prevents the fixing solution from becoming weakened by developer which is carried into it.

Almost any commercially prepared film fixing bath can be used for fixing your films. Some of the more recent formulas prescribe the addition of boric acid (about 7 grams for each 32 ounces of solution), to give greater hardening qualities and to lessen the tendency toward sludge precipitation. Eastman formula F-5 is recommended, but there are many other excellent rapid acid-hardening fixing baths on the market.

Between 65 and 70° F. is a good working temperature, and if fine grain is your object, it is important that the temperature of all three solutions be the same. Any difference between the temperature recommended and the actual temperature of the developing solutions can be compensated for by adding *one* minute for each degree *under* the recommended temperature, and vice versa.

Films should be agitated *slowly* during the entire development period. Insufficient agitation will cause uneven development. After complete development, immerse and agitate the film for 10 seconds in the intermediate or short-stop bath. Likewise, agitate the film constantly for 3 minutes in the fixing bath. The length of fixation can be determined by allowing the film to fix for twice the length of time necessary to clear the film; too long a time in the fixing bath will cause bleaching. Clearing time can be tested by soaking a short strip of undeveloped raw film in the fixing bath; films should take no longer than 6 minutes to clear.

Films should be thoroughly washed after fixation. (Because all 35mm. film is gelatin coated on the emulsion side only—as opposed to larger roll film, which has an anti-curling, gelatin coating on the *back* of the film as well—tests have proved that, in 10 minutes a 36-exposure roll of 35mm. film can be washed completely free of fixer in running water.—Editor) It is desirable, but not essential that the wash water temperature be near the temperature of your working solutions. If your darkroom sink has a mixing faucet, the water can be tempered until it is just right; if running water is not readily available, the film can be washed in about 6 changes of water, allowing approximately 3 minutes for each.

After washing, rinse films in a solution containing 10 drops of wetting agent to 32 ounces of water, for about 30 seconds. This eliminates water streaks and cuts drying time considerably. Run a damp chamois *lightly* down both sides of the film to remove excess water before hanging the film to dry. Hang films where there is least danger of circulating dust coming in contact with the emulsion.

After films have thoroughly dried, it is advisable to cut them into lengths of 6 exposures. Do not roll your film! Rolling film causes scratches.

If your first roll develops on the dense side, it is either overexposed or overdeveloped. Therefore, assuming that your exposures are consistent, reduce your development time by 2 or 3 minutes, since it is better to overexpose than to overdevelop. Remember, however, that although you have seasoned the fresh developer, the density of your first few rolls might be attributed to a little extra energy that may have still remained. It may take 4 or 5 rolls of film to bring your developer down to a point where it will develop consistently.

Carefulness and *Cleanliness* in processing your film can never be over-emphasized. Never handle film except by its edges, and don't hang your films near a radiator to accelerate drying; excessive heat causes reticulation.

Although grain is inherent in any monochromatic emulsion, you can control the quality of your negatives by the skillful manipulation of exposure and development. It is only by experience and knowledge gained through trial and error that one can hope to attain the degree of perfection that distinguishes the novice from the serious amateur or professional miniature photographer.

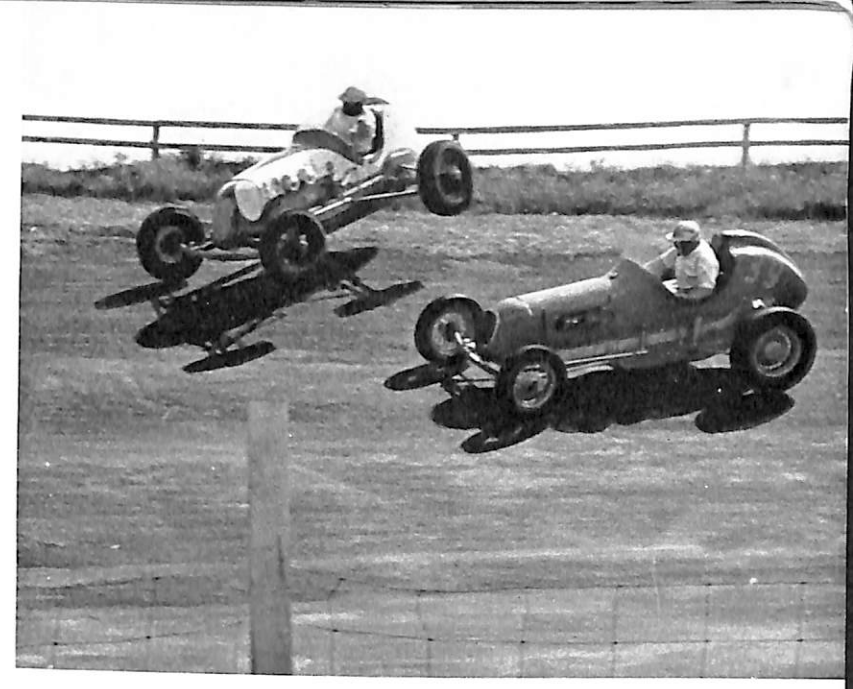
LEICA LENS COATING

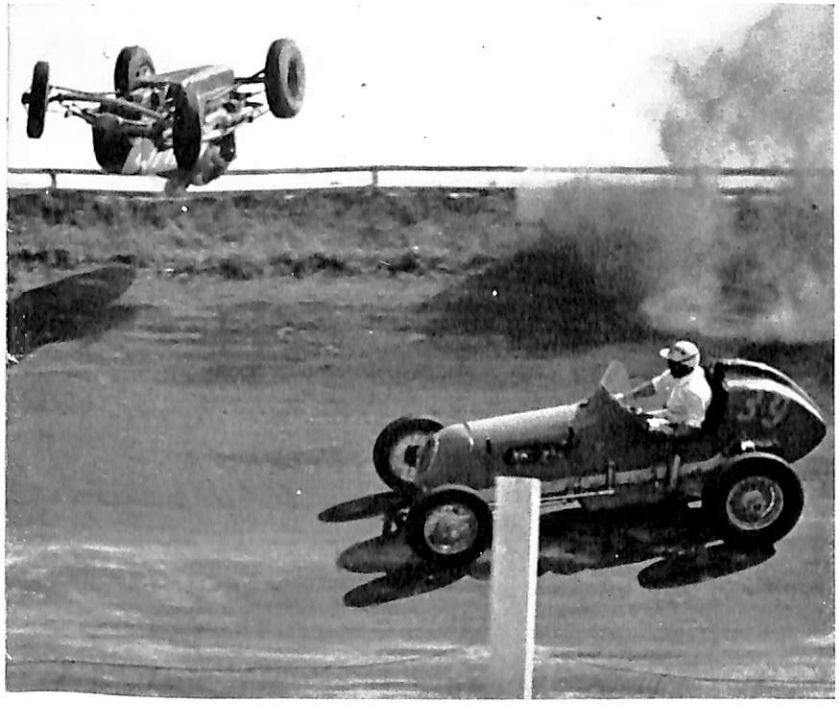
COATING COSTS. We are pleased to announce that your Leica Franchised Dealer is now able to accept orders for the Leitz coating of the full range of pre-war Leica lenses. The following list includes prices for the cleaning, polishing, recementing, and coating of Leica lenses.

Type of Lens	*Cleaning*	*Polishing*	*Recementing*	*Coating*
Hektor 28 mm.	$4.80	$7.20	$12.00	$20.00
Elmar 35mm.	4.80	7.20	12.00	20.00
Elmar 50mm.	3.60	9.60	12.00	20.00
Varob 50mm.	3.60	9.60	12.00	20.00
Hektor 50mm.	4.80	12.00	15.00	22.00
Summar 50mm.	4.80	12.00	15.00	22.00
Elmar 90mm.	4.80	12.00	15.00	22.00
Elmar 105mm.	4.80	12.00	15.00	22.00
Elmar 135mm.	6.00	13.20	15.00	22.00
Hektor 135mm.	6.00	13.20	15.00	22.00
Summitar 50mm.	4.80	12.00	15.00	24.00
Xenon 50mm.	9.60	14.40	15.00	33.00
Hektor 73mm.	9.60	14.40	15.00	27.00
Thambar 90mm.	7.20	12.00	15.00	24.00
Telyt 200mm.	9.60	16.80	20.00	33.00
Telyt 400mm.	9.60	16.80	20.00	40.00

NOTE: *These prices are subject to minor variations depending on the condition of the lens and nature of repair work needed. All polishing and recementing charges include cost of cleaning.*

Delivery on lenses which need cleaning, polishing, or recementing is approximately two weeks from receipt of repair authorization. Coating takes approximately four weeks.





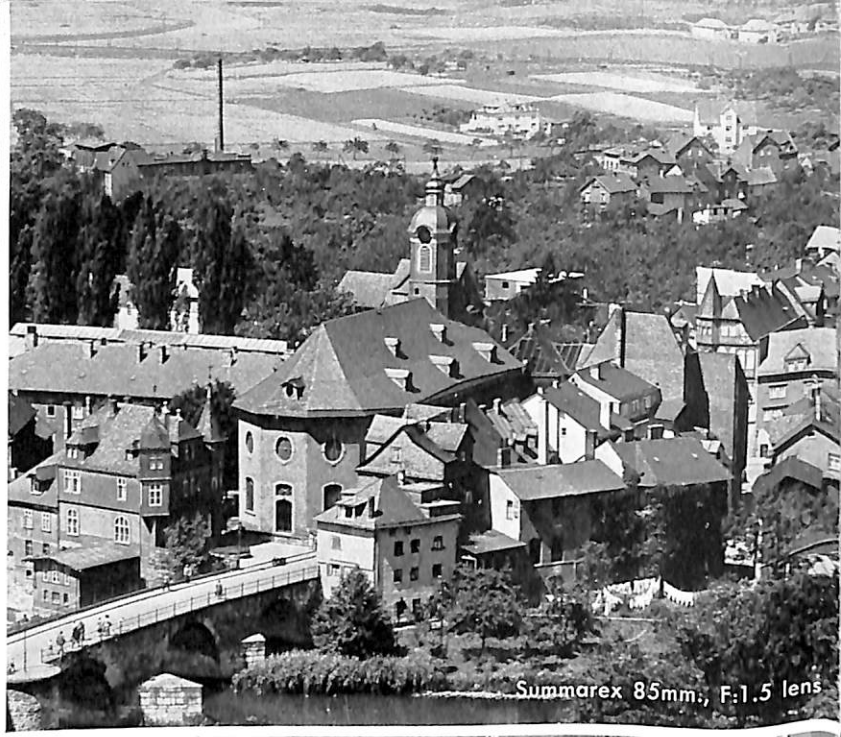
LEICA SEQUENCE SHOTS

by John Weiser, Dayton, Ohio

The Leica Motor for rapid sequence shots was first made available for the Leica Camera in 1937, preceding by several years other types of 35mm. still-sequence cameras. The exciting possibilities of this accessory—together with its wide range of application to specialized work – made an immediate "hit" with press, industrial, and medical photographers all over the world; to such an extent that even the pre-war production of the Leica Motor did not fulfill the demands.

Mr. Weiser, of Dayton, Ohio, who made this amazing series of sequence shots (which first appeared as a double spread in *Life*), has been using the Leica Motor for all his press assignments during the past ten years. Operating at a shutter speed of 1/1000 of a second, and with the Summitar lens of his Model IIIb Leica Camera stopped down to F:3.2, Mr. Weiser used the Leica Motor at the full "burst" of twelve shots in six seconds to cover the start and finish of the accident.

Hektor 28mm., F:6.3 extra wide angle lens



Summarex 85mm., F:1.5 lens

Elmar 35mm., F:3.5 wide angle lens

Elmar 90mm., F:4 lens

Summitar 50mm., F:2 lens

Hektor 135mm., F:4.5 lens

INTERCHANGEABLE LEICA LENSES

The fact that the Leica Camera may be fitted with a complete series of interchangeable lenses is one of the most important characteristics of the Leica system of photography.

The principle of interchangeability is not new, but as developed and applied to the Leica Camera, it has been made available to a far greater number of photographers than was previously possible.

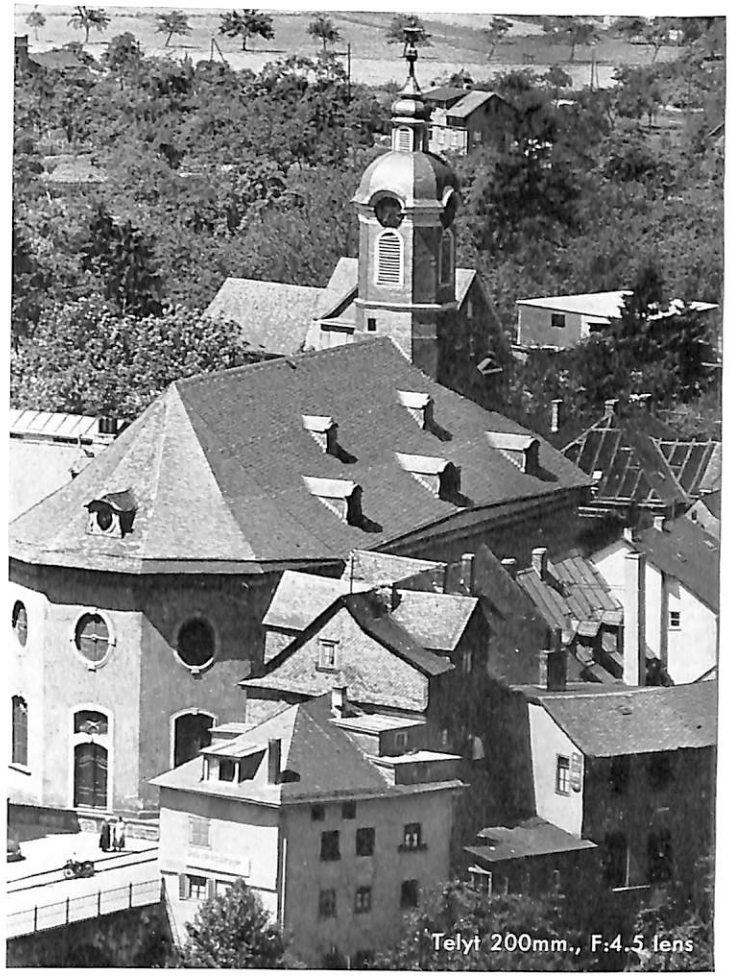
The pictures reproduced here demonstrate one of the chief advantages of the interchangeable Leitz lenses, all seven pictures having been taken with the same camera, from the same viewpoint. Certainly no camera with one, fixed, "universal" lens could have encompassed this sweeping view of Wetzlar and the river Lahn—while at the same time singling out architectural details with such superb clarity.

The Leitz 28mm. (1⅛″), F:6.3 Hektor lens gives an image angle of 76°. At the full aperture of F:6.3 (which is remarkably large for a lens of this angle of field), the full image area of the Leica Camera is defined with extreme sharpness, and, what is particularly noteworthy in a lens of such short focal length, the image area is completely free from optical distortion. Moreover, in view of this unusual shortness of focal length, the fact that the 28mm. Hektor is calibrated with the range finder represents another outstanding Leitz achievement in lens construction. This lens also has the extreme depth of focus characteristic of the F:3.5 Elmar lens, but to a considerably greater extent.

The angle of field of the Leitz 35mm. (1⅜″), F:3.5 wide angle Elmar lens is almost 64°, and in spite of the really high aperture of F:3.5, this lens possesses the first-class definition of the other Elmar lenses of different focal length. The great depth of focus makes it possible to avoid setting the lens repeatedly; for instance, at the aperture of F:4.5, sharp focus on all objects between 13 feet and infinity may be obtained by setting the lens to focus on a distance of 26 feet.

The Elmar 90mm. (3½″), F:4 long-focus lens is one of the most popular Leitz lenses for portrait and landscape work, its light weight being a special advantage when working without a tripod—since a heavier lens may cause camera motion in hand-held exposures.

The Leitz Hektor 135mm. (5⅜″), F:4.5 lens has an exceptionally high resolving power and should be used where subjects of fine structure are to be photographed. It fulfills perfectly all that the photographer demands from a long-focus lens, being suitable not only for distant landscapes and scientific work, but also of great value for portraits—particularly head studies—and for fine details of architecture, which must necessarily be photographed from some distance. In addition, the 135mm. Hektor lens has extremely good color correction, and is thus particularly fitted for work with color films, and for use with infra-red films and a red filter.



Telyt 200mm., F:4.5 lens

The range of application of the Leitz 200mm. (8″), F:4.5 Telyt lens is very much the same as that of the 135mm. Hektor. The size of the picture on the negative, however, is almost half as large again, and compared with the 50mm. "universal" lenses, the magnification of the image given by the Leitz Telyt lens is 4 times.

The advantage of the telephoto principle is that such a lens can be fitted in a mount which is considerably shorter in length than the focal length of the lens itself. Thus, the Leitz Telyt is only 3.3mm. longer than the Hektor 135mm. lens, although its actual focal length is 6.5 mm. greater.

In the computation and construction of this lens, which has the excellent definition and evenness of illumination over the entire picture characteristic of all Leitz lenses, special attention has been given to insure the most complete color correction possible, so that the lens is as accurate when used with color films—as with the panchromatic and infra-red types. The latter films are particularly recommended for long distance work, where they serve to penetrate the bluish atmospheric haze which is often present in such photography, and which might otherwise destroy fine detail and over-all sharpness.

To avoid parallax and make certain that the picture area is the same as that visualized (this is always a point of difficulty with telephoto lenses), a mirror reflex attachment is provided which also serves for focusing directly on to the glass screen, so that no coupling with the range finder is necessary.

FOLLOW THROUGH

So most Leica Photographers are home again, having captured on film—we hope—the memorable moments of their too-fleeting vacations. While we agree wholeheartedly with one correspondent, who wrote, "With a Leica you can capture the whole world and bring it home in your pocket"—*we* have a long way to go before reaching that Alexandrine state wherein we cry for fresh photographic worlds to conquer. The half-million Leica Photographers throughout the world have undoubtedly recorded the physical characteristics of every country; as a disciple of Thoreau, we find almost as much pleasure in the photographic study of a woodland pond throughout the seasons, as we derive from the more strenuous pursuit of pictures in foreign parts.

But irrespective of one's picture-making locale, the basic principles of good Leica Photography are the same. We frankly admit that our technique during annual vacation trips comes perilously close to that of the Leica enthusiast, who just before squeezing off another six frames, said, "What is offered one minute and is allowed to pass will not recur in eternities."

But having exposed our mile of monochrome film (with possibly a quarter of our total shots on color film), we are now most interested, upon returning home, in the careful processing of our black and white negatives, and in the final print finishing. Good processing of a Leica film is no difficult thing, the chief essentials being cleanliness and care throughout the developing, fixing, washing, and drying stages. After many years in miniature photography, we are still puzzled by those Leica Photographers who will entrust any corner drugstore with the finishing of their 35mm. films. If they are not set up to do their own work, then they should choose a Leica Franchised Dealer, who can offer the highest quality Leica processing—at little more than the prices charged by the "cut-rate" merchants.

While we have no desire to pontificate, we must stress at this point that the essential link in the production of highest quality enlargements from good Leica negatives—is a Leitz 35mm. enlarger. We can positively state that there is no other enlarger on the American market today which is specifically designed, both mechanically and optically, for the production of sharp, evenly illuminated enlargements from 35mm. negatives.

Any enlarger designed and sold to accept both large negatives and the smaller 35mm. negatives, is, by elementary optical laws, a compromise. The loss of quality—involving light scatter through a large condenser and lens—when a 35mm. negative is projected through such an enlarger, can be seen with the unaided eye, even before an enlargement is made.

In short, we can't help but feel that Leica Camera equipment, with a cheap enlarger, is rather like a Cadillac sporting a raccoon tail.

Unlike most doctors, we do take our own medicine—as the illustrations in the magazine show: our routine for print quality, which comes from using the Focomat Enlarger, has been adapted by both the process and gravure engravers who produce plates for the illustration of *Leica Photography*.

We know that you, too, expect fine prints from your Leica Camera negatives, and you will get them—if you follow through with a Focomat.

NECTAR FOUNTAIN
By A. Stewart

ACTOR PLAYWRIGHT
By Bryan Heseltine

AMERICAN BOY
By Ralph G. Morrissey

EARLY BIRD
By Emily Goode

EARLY GRUB
By Darwin Tiemann

BULLDOG
By Thomas Whittle

BULL O' THE WOODS
By Durand Schwarz

PRICKLY PEAR
By Blanche H. Adams

NOTES AND TIPS

PRIZE WINNERS OF SECOND LEICA COMPETITION. Entries for the second section of the Grand Leica Triple Competition, which was restricted to scientific, technical, and natural history subjects, were extremely heavy—and more than 95% of the total entries were submitted as mounted 35mm. color transparencies. The outstandingly high quality of this work far outshone the black and white entries, no single black and white print being of prize winning quality in the opinion of the judges. It was therefore decided to merge the two lists of prizes into one list of ten awards—all for color:

1. A. Stewart—618 W. Canon Perdido, Santa Barbara, Calif.
2. John Amorosia—136 S. 2nd Street, Brooklyn, N. Y.
3. Blanche H. Adams—640 N. 1st Avenue, Phoenix, Ariz.
4. Rev. J. R. Swain—22 Church Street, Middletown, Conn.
5. Emily Goode—Sharon, Mass.
6. E. K. Kelly—City Line Avenue, Phoenixville, Pa.
7. Darwin Tiemann—Box 57, China Lake, Calif.
8. Dr. R. E. Straub—Robert Packer Hospital, Sayre, Pa.
9. John H. Stanley—523 Cliffside Drive, Columbus, O.
10. John Mardesich—11521 36 Avenue, Seattle, Wash.

Mr. John Amorosia, of Brooklyn, New York, whose trichrome Carbro enlargement of "Strawberries" won him a first prize, made the print from three, three-separation Leica negatives. A description of this three-color process (which may be used only for still-life shots), will be printed in the spring number of *Leica Photography*.

Reproductions of four of the prize winning color pictures appear in monochrome in the gravure section of this issue; technical data on these pictures are included in, "About Our Pictures" (see below).

ABOUT OUR PICTURES. The cover of this issue of the magazine is reproduced from a Leica Kodachrome by Mr. Edward Gray, of Buffalo, New York, who won first prize in the first section of the Grand Leica Triple Competition with this striking color picture. When we informed Mr. Gray of the award, he wrote:

> Inasmuch as this was the very first contest that I had ever entered I was very surprised—and very pleased—to have taken first place. However, your award has given me the encouragement so necessary to a tyro, who generally feels that contest editors favor "big name" entries. Its incentive has given me a new self-confidence that is immeasurable.

Four of the ten prize winning color pictures in the second, Scientific and Technical section of the Leica Competition, were selected for reproduction in monochrome, and are an excellent example of what "makes" prize winning color pictures. Correct color balance and optimum sharpness are necessary, of course, *but*—the subjects must also be well composed, so that even as monochromes the pictures will still be striking; the enlarged monochrome negatives must naturally be of the highest quality, if they are to retain the delicate nuances of the color positives. For the production of the copper gravure plates of "Nectar Fountain," "Early Bird," "Early Grub," and "Prickly Pear," full-range enlarged negatives were made with the same equipment as that used for the red, blue, and yellow printing separation negatives.

The portrait of Emlyn Williams, titled, "Actor-Playwright," was made during his recent South African tour, by one of the Cape Province's most outstanding Leica Photographers, Bryan Heseltine. "American Boy" is from the Leica picture files of Ralph G. Morrissey, of Nashville, Tennessee.

Nectar Fountain — By A. Stewart
Leica Camera, IIIc, on the Focaslide; with Hektor 135mm., F:4.5 coated lens, one second at F:24; Kodachrome "A" Film

Actor-Playwright — By Bryan Heseltine
Leica Camera, IIIb, with Hektor 135mm., F:4.5 coated lens, 1/20 second at F:6.3; Ilford F.P.2 Film, Panthermic 777 Developer

American Boy — By Ralph G. Morrissey
Leica Camera, IIIc, with Summitar 50mm., F:2 coated lens, 1/100 second at F:4.5; Ansco Supreme Film, Panthermic 777 Developer

Early Bird — By Emily Goode
Leica Camera, IIIb, with Hektor 135mm., F:4.5 coated lens, 1/40 second at F:5.6; Kodachrome Film

Early Grub — By Darwin Tiemann
Leica Camera, IIIc, with Summitar 50mm., F:2 coated lens (at F:8) fitted to the 15mm. extension tube, on the Focaslide; 1/30 second exposure; Kodachrome "A" Film

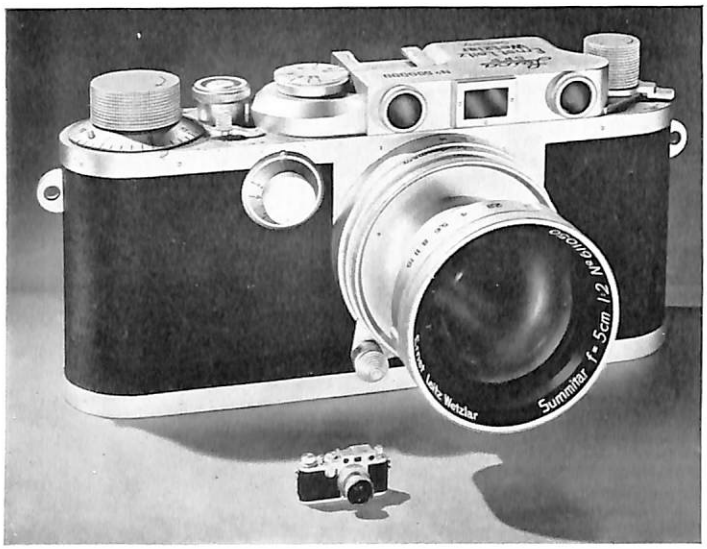
Bulldog — By Thomas Whittle
Leica Camera, IIIc, with Elmar 90mm., F:4 coated lens at F:8; one Press 40 Bulb in Leitz Synchronized Flash Unit, Model VIIIa—at 1/200 second; Dupont Superior Film, Panthermic 777 Developer

Bull O' The Woods — By Durand Schwarz
Leica Camera, IIIc, with Elmar 50mm., F:3.5 coated lens, 1/100 second at F:11; Kodak Super XX Film, Microdol Developer

Prickly Pear — By Blanche Adams
Leica Camera, IIIc, on Focaslide; with Hektor 135mm., F:4.5 coated lens, 1/2 second at F:16; Kodachrome Film

NOTES AND TIPS

WORLD'S LARGEST LEICA. This almost perfect scale model, twelve times greater than actual IIIc size, was made in our plant here in New York: the real Leica IIIc Camera is that



little dot down front. The giant model, which took several weeks to build, was decidedly more costly than a Leica IIIc with Summitar, and so far, no one has yet announced plans to produce a 420mm. film for it; Leica enthusiasts, please note.

Interested readers will be able to see this larger-than-life Leica when it starts its tour of the Leica Franchised Dealer stores in the fall.

OMIFO INFO. The Elmar 90mm., F:4 coated lens and the American-made 90mm., F:4.5 coated lens, when used with the OMIFO reproduction device, cover a field of 4" x 5½"—at a working distance of 17 inches from the front of the lens to the object. There is, of course, no need to measure this distance, as both the range and view are automatically compensated for by the OMIFO sights, which are aligned in front of the range- and view finder exit windows of the camera. When using your 90mm. lens on the OMIFO device, always make sure it remains at the infinity setting.

THE LEICA IN ADVERTISING. Several keen readers have pointed out that the Leica Camera has recently played a prominent role in advertisements which range from pigskin gloves to luxury cruises. Some correspondents have asked if this has been done by arrangement with us; we can state positively, with our hand on our heart, that neither the girl (holding a Leica) on the deck of the "Lurline" in the Matson Line advertisement, or the boy (holding a Leica) between his pigskin-gloved hands in the Lord & Taylor advertisement—*or their respective agents*—are known to us. We would, of course, just love to introduce two such keen Leica Photographers to each other; oh, what a happy Leica wedding day would follow—but would the advertising agents like it?

THREE TIPS FROM THE *LEICA BREVIER* for 1949.

1. If you should wish to insert a roll of color film in a Leica which already contains a partly exposed roll of black and white film, it is necessary only to rewind the black and white film *up to the leader,* remove it from the camera, and insert the color film—always remembering to have the lens cap in place for safety's sake. Later, to use the unexposed portion of monochrome film, insert it in the camera, wind and release for the exact number of exposures already made, wind once again—and shoot.

Even if the exposure counter was not set when the black and white film was originally loaded into the camera, you can still keep an exact tally of the number of unexposed frames on the partly used roll: after setting the rewind lever of the IIIc Leica on "R," watch the black dot on the release button; with other models, watch the cut in the edge of the release button protection ring. As each turn corresponds to one frame, the number of turns will exactly indicate the number of your exposures, and this number can then be marked on the film leader. If then, when reinserting the film, you add one extra frame to this number, a margin of safety is provided—with no appreciable loss of unexposed film.

2. Should you be unlucky enough to lose your take-up spool while on a photographic trip, and so unfortunate as not to have a spare along, this makeshift device will meet the emergency: taking a ⅜" wide by 1½" long adhesive tape, stick half the length of the tape on the emulsion side of the film to be used. After placing the cassette in the camera, check its height on the film transport pin, and then stick the free end of the adhesive tape on that pin. Before putting the baseplate on the camera, wind the shutter once—to see that the film moves on correctly. When the whole roll has been exposed, rewind as usual, until you feel a slight resistance; now, open the baseplate, take off the adhesive tape and remove the roll from the camera. By no means should the tape be run back over the film pressure plate.

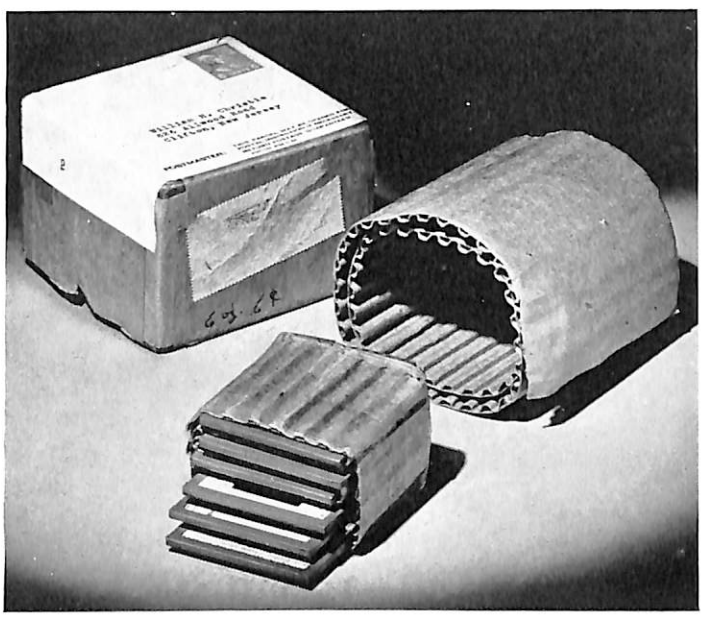
3. If you wish to enlarge Leica negatives which have become scratched up, place them in glycerine, between two glass plates. Put a little glycerine on each side of the film so that no bubbles form when you press the glass plates together. The excess glycerine coming out on the edges should be taken up with a blotter before putting the negative into the enlarger. After the enlargement has been made, the glycerine can be removed from the negative with water.

This same process can also be applied to printing from a wet negative when time is short and you don't want to wait for the negative to dry.

NOTES AND TIPS

AWARD OF MERIT. Our grateful thanks to Mr. William H. Christie, of Clifton, New Jersey, who made our task of unpacking, judging, and repacking his excellent entries to the Grand Leica Triple Competition, so pleasant. If only the other thousands of contestants in the first section had done likewise—!

Day after day we lost ourselves in a monstrous maze of cardboard and brown paper, attacking knots of Gordian proportions, and backtracking through labyrinthine windings of some of the stickiest tape we've ever fingered. Layers were unpeeled to reveal other layers beneath; like the "Chinese parcels" we used to prepare for April Fool's Day, one box often held a smaller one inside; and oddly enough, the largest packages usually yielded one, sometimes two, Kodachromes—whereas the small, jeweler's box generally held as many as its size permitted and the contest allowed.



The beauty of Mr. Christie's packing lies in its simplicity—no loose stamps, no wads of tissue, no strings attached—and with each slide correctly titled and bound in accordance with the rules of the Competition. As the accompanying picture shows, Mr. Christie's slides were arranged something in the manner of a slide box, so that it was easy to withdraw each transparency, insert it in our Desk Viewer for the preliminary judging, and then put it back into its own slot. The corrugated "holder" was then just as easily replaced in the mailing carton – a neat, stamped, self-addressed little box—devoid of the ubiquitous shredded paper and surgical cotton, which seemed to rise with the humidity of our New York summer until we could never get all the stuffing back into the original container. Incidentally, we had to disqualify several entries on different counts—some bound and unbound slides even being devoid of any identifying data. Quite a few transparencies in Kodak "Ready-mounts" had been bound again between glass plates, and naturally, these triple sandwiches were too thick to insert into the slide carrier of the Leitz VIIIs projector for the final judging.

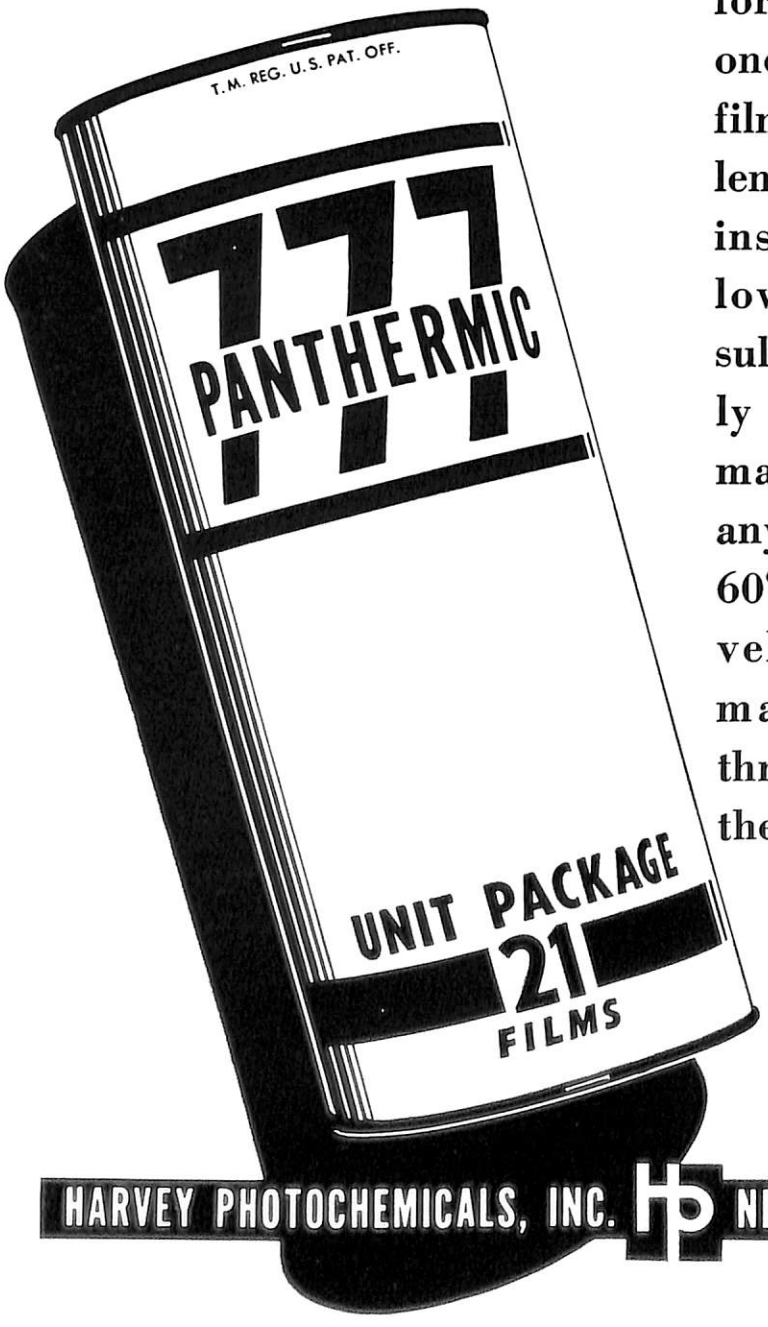
BETTER LATE THAN EARLY. In addition to providing thought for some extremely provocative speculations, we think the following quotation (from H. V. Morton, in *My Leica And I*), proves that the "good old days" weren't all some people like to think they were. Imagine—if you can—no LINOT, no LIELM, *NO LISUM!*

> I have sometimes wondered to what character in history I would give a Leica, were such a gift possible. I think Shakespeare would have been a first-class operator, and so, perhaps, would Bacon. Dr. Johnson, I fear, would have been a bad, . . . performer. The best pictures would have come from Boswell, showing the doctor in the act of taking the Hebrides with the cap on the lens, or with an unextended Elmar.
>
> If one, and one only, Leica could have found its way into history, I should like it to have come into the possession of Samuel Pepys. What admirable use he would have made of it in the City, at St. James's, at Barn Elms. Imagine his negatives during the Fire of London. Imagine his candid "'shots" of Charles II and Nell Gwynn, and many others.
>
> Pepys might, of course, have found the Leica so satisfying that the keeping of a Diary would have seemed superfluous. Perhaps, therefore, it is just as well that this superb invention has been withheld until our time.

THIS PACKAGE

contains chemicals to make 1 Litre or 34 ounces each of developer and replenisher, instruction book, development tables and labels for the bottles; for processing twenty-one 35mm or 120 size films or their equivalent in other sizes. If instructions are followed, uniform results and exceptionally finegrain images may be obtained at any temperature from 60° to 90° F with development time remaining constant throughout the life of the solution.

•

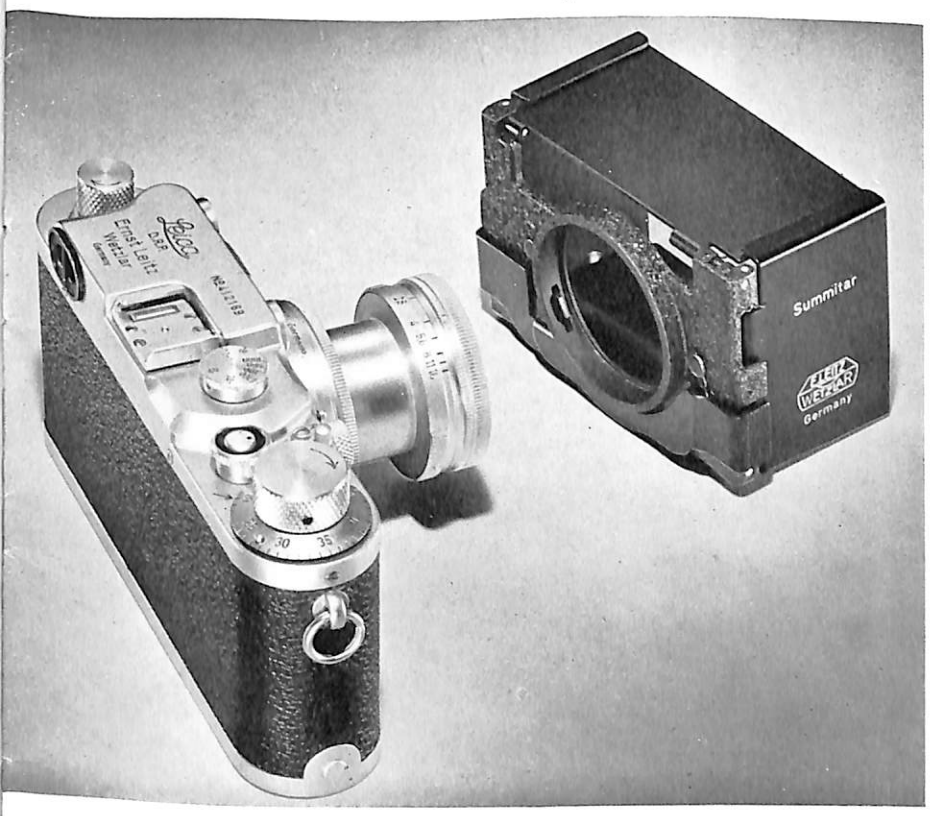


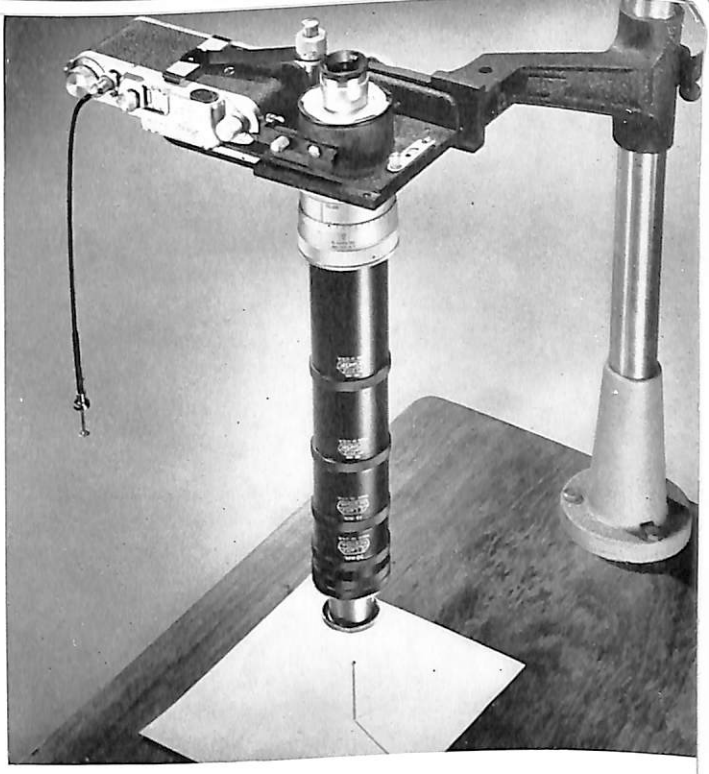
HARVEY PHOTOCHEMICALS, INC. HP NEWTON, NEW JERSEY, U.S.A.

Leica NEWS

ACCESSORIES NOW IN PRODUCTION

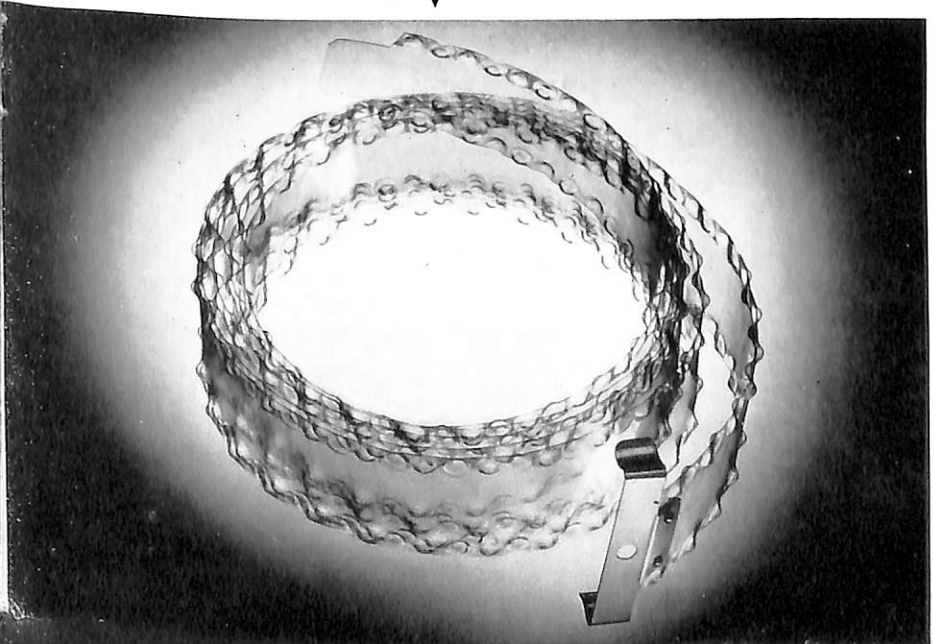
The new collapsible Sunshade for the Summitar 50mm., F:2 coated lens is available in matte-black finish, and is equipped with integral spring pressure grips for ease of attachment to the lens barrel. The present, chrome-plated hood is of similar construction—although fitted with a small thumbscrew instead of the spring grips; both types of collapsible hoods are priced at $15.05, inclusive of tax. ↓





The Focaslide (No. 70,328) is shown with the complete set of six extension tubes and the Adjustable Micrometer Extension Tube. When working at relatively great distances, focusing becomes extremely critical, and it is, therefore, advisable to use a high power 30X magnifier. ↑

The CORYB extra celluloid apron is available again, price $5.25. Those who do not have the pre-war Correx Tank and spider (not yet in production), may nevertheless use the apron coiled on itself, as shown, to fit any orthodox plastic tank or light tight dish. The great advantage of this apron over any other type of 'spider' is that *two* films may be processed back-to-back in perfect safety. ↓



The Leitz Collapsible Table Tripod with ball pointed head (No. 67,061) accepts any Leica Camera. This new tripod (over-all height, 6″) is rigid enough to support larger cameras such as the Rollei, Ansco, and Kodak reflex types. Price $15.75—from your Leica Franchised Dealer. ↓

WHERE TO GO... FOR LEICA SUPPLIES

This Directory contains a partial list of LEICA Camera Franchised Dealers, all of whom are fully equipped to offer complete LEICA service and finishing.

Albuquerque, N. M.	CAMERA SHOP OF NEW MEXICO 412-414 East Central Avenue
Ann Arbor, Mich.	CALKINS-FLETCHER 324 South State Street
Atlanta, Ga.	FRYE'S PHOTO SHOP 259 Peachtree Street, N.E.
Beverly Hills, Calif.	BEVERLY HILLS CAMERA SHOP 417 North Beverly Drive "AREMAC" CAMERA & TELEVISION, INC. 9443 Wilshire Boulevard
Birmingham, Ala.	BROMBERG & CO., INC. 123 North 20th Street
Boston, Mass.	CLAUS GELOTTE, INC. 284 Boylston Street PARK SQUARE BLDG. CAMERA & PHOTO Arcade 12, Park Square Building
Cambridge, Mass.	HARVARD CAMERA EXCHANGE Harvard Square CLAUS GELOTTE, INC. Harvard Square DERBY JEWELER, INC. Harvard Square
Chicago, Ill.	BASS CAMERA COMPANY 179 West Madison Street CENTRAL CAMERA CO. 230 South Wabash CONWAY CAMERA COMPANY 34 North Clark Street THE GENERAL CAMERA COMPANY 2308 West Devon Avenue Main Floor, Merchandise Mart SOUTH SHORE CAMERA EXCHANGE 1927 East 71st Street WELLS-SMITH CAMERA CO. 15 East Washington Street
Cincinnati, Ohio	EASTMAN KODAK STORES, INC. 27 West Fourth Street
Cleveland, Ohio	CAMERA CRAFT, INC. Shaker Square THE DODD CO. 1025 Huron Road
Columbus, Ohio	BUDD & CO. 30 North High Street
Dallas, Tex.	MARLOW'S 1610 Main Street
Davenport, Iowa	CINARCO PHOTO SUPPLY, INC. 312 Main Street
Des Moines, Iowa	DEANE SMITH PHOTO SUPPLIES 2641 Beaver Avenue
Detroit, Mich.	DETROIT CAMERA SHOP 325 State Street THE SILHOUETTE CAMERA SHOP 11862 Grand River Avenue
Duluth, Minn.	NELSON PHOTO 2026 West Superior Street
Eugene, Ore.	WILTSHIRE'S 1045 Willamette Street
Eureka, Calif.	PHOTO SPECIALTY SHOP 511 F Street
Glasgow, Ky.	GEO. J. ELLIS DRUG CO., INC. 144 South Green Street
Grand Rapids, Mich.	FUSON'S CAMERA SHOP 165 Ottawa Avenue, N.W.
Harrisburg, Pa.	JAMES LETT COMPANY 225 North Second Street
Hollywood, Calif.	BLEITZ CAMERA CO. 5338 Hollywood Boulevard MORGAN CAMERA SHOP 6262 Sunset Boulevard
Houston, Tex.	CARROLL CAMERA CO. 1004 Travis at McKinney
Kalamazoo, Mich.	CRESCENT STUDIOS CAMERA SHOP 334 West Michigan Avenue
Kansas City, Mo.	CRICK'S CAMERA SHOP 6317 Brookside Plaza
Los Angeles, Calif.	"AREMAC" CAMERA & TELEVISION, INC. 9443 Wilshire Boulevard MARSHUTZ OPTICAL CO. 418 West Sixth Street SPINDLER & SAUPPE 2201 Beverly Boulevard STANDARD CAMERA SUPPLY CO. 7901 Santa Monica Boulevard
Madison, Wis.	UNIVERSITY PHOTO SHOP 648 State Street
Miami Beach, Fla.	ENFIELD'S CAMERA SHOP 409 Lincoln Road
Milwaukee, Wis.	CAMERA CENTER 3948-50 North Oakland Avenue KROWN CAMERA CO. 207 West Wells Street PHOTOART VISUAL SERVICE 840-44 North Plankinton Ave. THE DARK ROOM 722 North Milwaukee Street
Moscow, Idaho	KYLE'S PHOTO SUPPLY 414 South Main Street
Nashville, Tenn.	GEO. C. DURY COMPANY 420 Union Street
New Bedford, Mass.	McGEE'S PHOTO SUPPLY
New Bern, N. C.	BAXTER'S
New Orleans, La.	BENNETT'S PHOTO 320-22 Baronne Street
New York, N. Y.	ABE COHEN'S EXCHANGE, INC. 142 Fulton Street ALLIANCE PHOTO SUPPLY 115 Worth Street AREMAC CAMERA COMPANY, INC. 1 East 43rd Street BROADWAY CAMERA EXCHANGE 2130 Broadway at 75th Street CAMERA PLACE, INC. 1295 Avenue of the Americas (51-52 St.) COLUMBUS PHOTO SUPPLY CORP. 1949 Broadway at 66th Street DOWLING'S, INC. 570 Fifth Avenue FOTOSHOP, INC. 18 East 42nd Street 136 West 32nd Street HABER & FINK, INC. 12 Warren Street MEDO PHOTO SUPPLY CORP. 15 West 47th Street MINIATURE PHOTO SALES & LABORATORIES CO. 50 West 57th Street MINIFILM CAMERA CORP. 1190 Avenue of the Americas OLDEN CAMERA & LENS CO. 1265 Broadway at 32nd Street PEERLESS CAMERA STORES, INC. 138 East 44th St.; 133 East 43rd St.

AND SERVICE

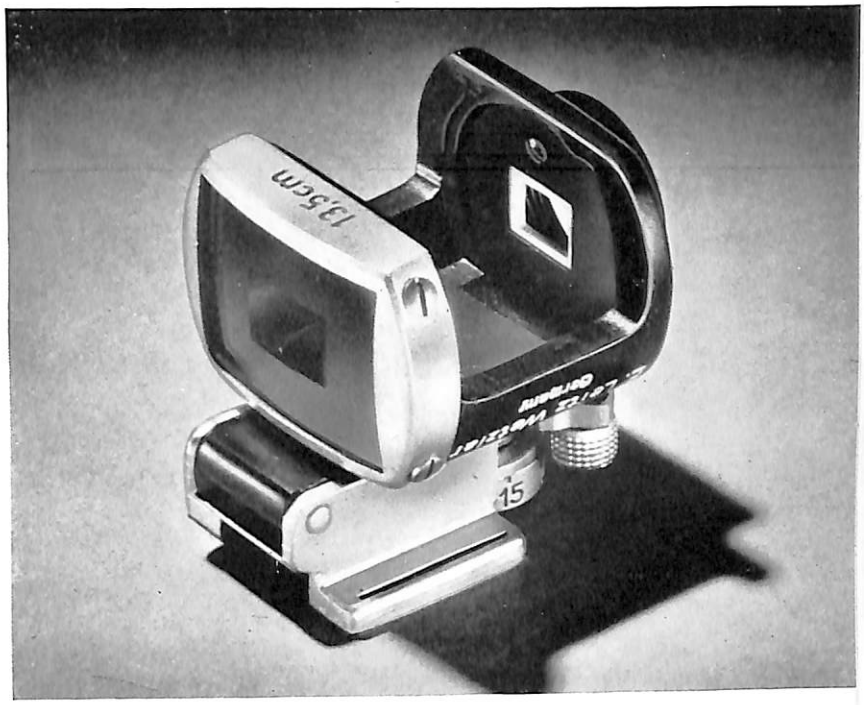
New York, N. Y.	PENN CAMERA 126 West 32nd Street RABSON'S, INC. 111 West 52nd Street ROYALTONE, INC. 245 Seventh Avenue UNITED CAMERA EXCHANGE 83 Chambers Street WILLOUGHBYS 110 West 32nd Street
New Ulm, Minn.	HEATHERCRAFT Camera Corner, 4 North Minnesota Street
Niagara Falls, N. Y.	CENTURY PHOTO SERVICE 910 Main Street
Oakland, Calif.	DAVIDSON & LICHT 1635 Broadway Street
Omaha, Neb.	CALANDRA CAMERA CO., INC. 1502 Douglas Street KRETSCHMERS LEICA SPECIALISTS 315 South 17th Street
Omaha (South), Neb.	CALANDRA CAMERA CO., INC. 24th & "N" Streets
Oswego, N. Y.	BARBEAU PHOTO SUPPLIES 33 East Bridge Street
Philadelphia, Pa.	DEDAKER'S CAMERA SHOP 277 West Mt. Pleasant Ave., Mt. Airy KLEIN AND GOODMAN, INC. 18 South Tenth Street KOSMIN'S CAMERA EXCHANGE 36 North Eleventh Street
Pittsburgh, Pa.	LIBERTY PHOTO SUPPLY 436 Wood Street PENN CAMERA 910 Liberty Ave. WOLK'S KAMERA EXCHANGE 308 Diamond Street
Providence, R. I.	METROPOLITAN PHOTO SUPPLY CO. 31-33 Aborn Street UNITED CAMERA EXCHANGE, INC. 607 Westminster Street
Reading, Pa.	W. F. DREHS 543 Court Street
Sacramento, Calif.	JOHN PARDEE PHOTOGRAPHIC SUPPLIES Fulton and Marconi Streets
San Francisco, Calif.	ALFRED BASS, INC. 585 Market Street MONROE J. BELLING 1126 Market Street BROOKS 45 Kearny Street
Santa Monica, Calif.	BOULEVARD CAMERA SHOP 1201 Wilshire Boulevard
Seattle, Wash.	CLYED'S CAMERA STORES 409 Union Street THE GOLDSMITHS Fifth and Pike Streets TALL'S, INC., 5th AVE. 1409 Fifth Avenue
St. Louis, Mo.	KAY'S PHOTO & OPTICAL CO. 212 North 7th Street WEBSTER CAMERA SHOP 16 North Gore Avenue
St. Petersburg, Fla.	STRAND CAMERA SHOP 9 Second Street North
Syracuse, N. Y.	HOTEL SYRACUSE CAMERA SHOP 526 South Warren Street
Tacoma, Wash.	MILROY'S SERVICE CO. 1145 Broadway
Washington, D. C.	BRENNER PHOTO COMPANY 933 Pennsylvania Avenue, N.W. CAPITAL CAMERA EXCHANGE, INC. 1003 Pennsylvania Ave., N.W.
White Plains, N. Y.	COLORTONE CAMERA, INC. 172 Martine Avenue
Wichita, Kans.	JEFF'S CAMERA SHOP 120 North Market

THESE ARE PAID ADVERTISEMENTS

Leica NEWS

ACCESSORIES NOW IN PRODUCTION

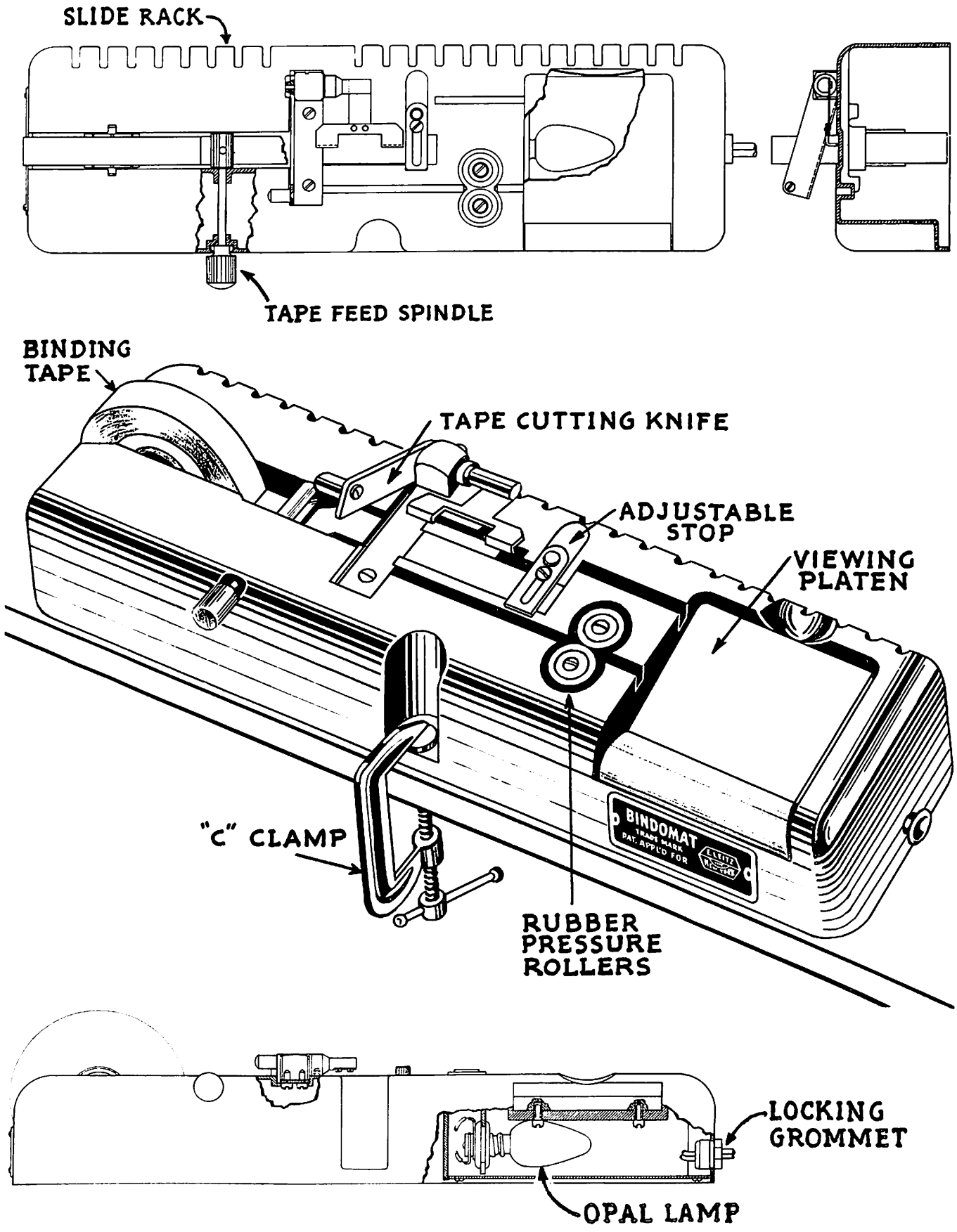
The new Sportfinder (No. 66,154), price $28.00, is fitted with parallax compensation. The viewing area is framed by a white, translucent border to facilitate composition of a moving object. ↓



The latest handmade and sewn Leica Eveready Carrying Case (No. 68,031a), price $24.00, accepts the Model IIIc Leica Camera fitted with the Imarect Finder and any of the 50mm. lenses. ↓

HOW IT WORKS

No. 7: The Bindomat



THE NEW LEICA TANDEM

The *Leica Tandem* is the invention of Mr. Wim Berssenbrugge, internationally known Dutch specialist in color stereo photography with the Leica Camera. The prototype was developed for work at the K. L. M. Airlines Technical College, where the program of visual education for engineering students demanded the production of many thousands of Leica Photographs – chiefly of complex engine mechanisms and structural features of aircraft. As the majority of the photographs were required for projection purposes, the stock of teaching slides was built up to include both black and white and color 35mm. transparencies.

Originally, the *Tandem* was designed for use with a pair of Leicas and 50mm. lenses—for stereoscopic photography only, and although stereo work was limited to shots with vertical composition, this was not considered a disadvantage; for the color work at the college was confined almost wholly to recording vertical panels of lever control mechanisms. In the final projection of the stereo color pairs (by the Leitz "Stereoly-Polaroid," two projector system), the three-dimensional depth, and distance apart of the levers and gears was readily appreciated by the students, each of whom wore "Polaroid" spectacles.

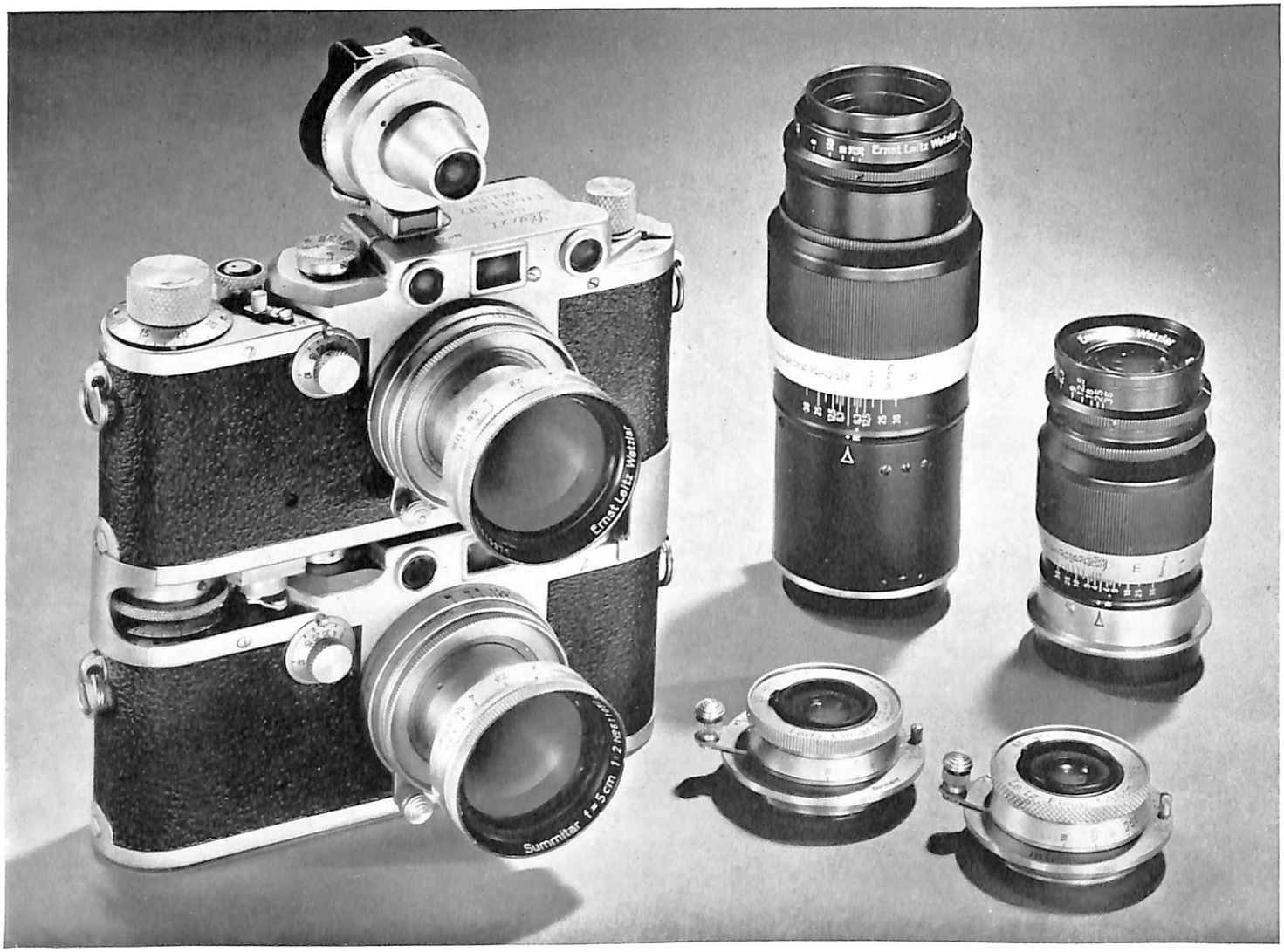
Excellent though the *Tandem* is for Leica stereoscopy, we know that it will have a much greater appeal to the advanced Leica Photographer for simultaneous black and white and color photography. Magazine photographers, for example, are often required to submit to art editors a selection of both types of photographs—the reason for this being that the high cost of color reproduction often limits the number of color shots an editor may use to illustrate a given story, and the black and white shots, which are necessary for continuity, are, of course, cheaper to reproduce. The use of the *Tandem* obviates making monochrome negatives of selected color shots, as, if it is desirable, any one shot can be secured in both color *and* black and white, at the same instant.

The flexibility of the *Tandem* is one of its chief attractions—for, since the shutter of the top Leica may be wound, set, and released independently of the lower Leica, the photographer is not tied down to duplicating every exposure on black and white, and color film. For instance, assuming that he intends to shoot more monochrome film than color, then the lower Leica is loaded with color film and the top with negative film. When duplicate shots are required—he winds both shutters with the *Tandem* coupling knurl: for a single shot, he winds only the top Leica.

The speed and ease with which the *Tandem*-coupled Leicas may be separated, and either Leica used individually—without adjustment—is further demonstration of the *Tandem's* flexibility; when the two cameras are to be connected together again, it is necessary only that they be loaded and wound. In addition, the *Tandem* baseplate has a built-in bushing, so that if it is desired, the top Leica (to which the baseplate is fitted) may also be used separately, on a tripod.

Tandem coupled Leicas, fitted with Imarect Finder, Hektor 135mm., F:4.5 coated lens and the latest Summarit 50mm., F:1.5 coated lens.

The sequence of operations when using the *Tandem* is easily followed. Assume that: a monochrome film, such as Kodak Panatomic-X, which has a Weston speed rating of 24, is loaded in the top Leica, and that the shutter is wound: that Kodachrome Daylight Film, with a Weston speed rating of 8, is in the lower Leica, and that the shutter is also wound. The exposure ratio of these films is 1:3, so therefore, the shutter speed dial of the lower Leica (which cannot be altered while both Leicas are coupled) should be set at, say, 1/60 of a second. The shutter speed dial of the top Leica (which *can* be altered while both cameras are *Tandem*-coupled) should then be set at 1/20 of a second—thus maintaining the ratio of 1:3—whereby, the lens diaphragm setting of both Leica Cameras remains constant, at F:3.5, F:6.3, or whatever aperture the exposure meter indicates. When the lens on each camera is of 50mm. focal length, it is not essential to use an Imarect Finder: compose the picture and bring it into focus through either the upper or lower Leica eyepieces, whichever is preferred, and set the focusing scale of each lens at the same distance marking. Having checked these important steps in the routine, and remembering that the shutter of the black and white camera has already been set at 1/60 of a second, shoot the picture by squeezing



Tandem-coupled Leicas for stereoscopy, fitted with Summitar 50mm., F:2 coated lenses. The Elmar and Hektor Long Focus and the Elmar Wide Angle lenses make an all-round kit.

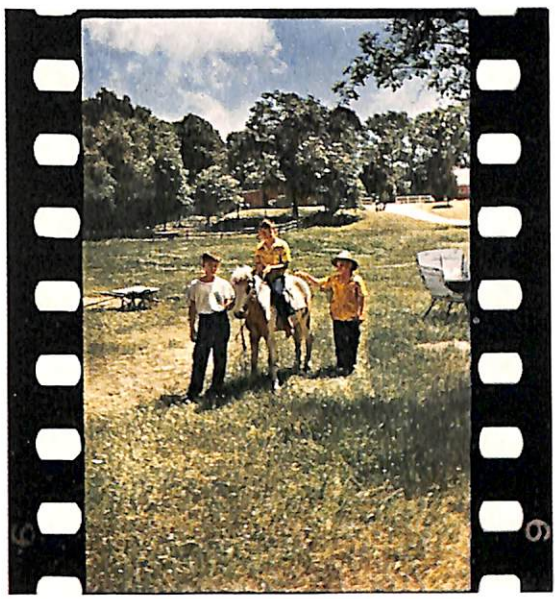
the release button of the top Leica firmly and steadily—whereupon the shutters of both cameras (having been factory synchronized by us) will fire in unison, capturing the identical scene on both films.

To reset the cameras for the next "double take," wind both shutters by rotating the knurled winding collar of the *Tandem*. If, however, it is desired to photograph the next scene only in monochrome, then wind only the shutter of the top Leica, in the normal way, and ignore the lower, or *Tandem* winding collar. After one or more single shots have been made, one may go back to "double takes" without the slightest possibility of damage or strain on either Leica Camera shutter. Having started out with the intention of shooting more black and white than color, and having therefore loaded the upper camera with monochrome film (since the shutter of the top camera can be operated independently of the coupled lower camera), it will be necessary to uncouple the cameras from the *Tandem*, should the photographer now wish to shoot only in color.

When shooting with *Tandem*-coupled Leicas in a "fire one, fire two, fire one, fire one" fashion, the film in the top ("fire one") Leica will naturally be expended before the film in the lower Leica. The cameras must be uncoupled for unloading and reloading, as already stated – but if, say, ten exposures still remain on the film of the lower Leica, it is but necessary to reload the top camera, couple it with the lower Leica, and resume shooting.

If the photographer wishes to use lenses of different focal length—as, for example, the Elmar 90mm., F:4 coated lens and the Summitar 50mm., F:2 coated lens—it is still only necessary to range find with one lens and set the focusing scale of the second lens at the same calibration. Keep the Imarect Finder set for the 90mm. lens (adjusting for parallax at distances of less than 15 feet), and use the standard camera view finder for the 50mm. lens. As shown in the complete set-up on this page—the Imarect Finder is also attached when any other than the standard, 50mm. focal length lens is employed. If any of the long-focus lenses are used in conjunction with the Elmar 35mm. lens, then it is advisable to scan the wide angle view first, and to expose while viewing the narrow angle scene through the Imarect Finder. (Note: when working with *any* combination of dissimilar focal length lenses, it is preferable to attach the longer lens to the lower camera, so as to maintain a better balance.)

The monochrome and color comparative illustrations on this page were made following this routine—shooting with the Elmar 90mm., F:4 coated lens for the black and white negatives and the Summitar 50mm., F:2 coated lens for the color positives.



Color process engravers prefer transparencies (intended for reproduction by the four-color process) to be of good "saturation" and a little on the "heavy" side, so the Kodachrome Daylight Film was rated at a Weston speed of 10 (official Weston speed rating, 8). As Kodak Plus-X Film (Weston speed, 50) was used in the upper Leica, the exposure ratio of monochrome to color was 5:1. The meter reading for the Kodachrome Film was 1/40 of a second at F:4.5, and therefore, the shutter speed setting for the upper Leica (loaded with Kodak Plus-X Film) was 1/200 of a second; both lenses were stopped down to F:4.5.

Another application of the versatile *Tandem*, is the phase-photography of sporting events. For this work, the shutters of the two Leica Cameras are purposely dis-synchronized so that the shutter of the top camera fires a split-second before the shutter of the bottom camera. Since the majority of such pictures are required for normal half-tone reproduction in newspapers and magazines, film such as Kodak Super-XX should be used in both Leicas. With fast lenses, such as the Summitar, shutter speeds can be as high as 1/1000 of a second under good conditions of outdoor lighting.

For indoor flash photography, such as portraiture or banquet work, when double-taking with color and monochrome film and *Tandem*-coupled Leicas, the lower camera should be fitted with a Leitz Model VIIIa Synchronized Flash Unit; then both shutters must, of course, be perfectly synchronized—so that the peak of the flash is "caught" simultaneously.

Production of the *Leica Tandem* is now under way here in New York, and the first shipments will be made to our Leica Franchised Dealers in time for Christmas. The retail list price is $77.00, which includes the essential checking of the two Leica Cameras, and synchronization of the shutters over the whole range of speeds. Purchasers of the *Tandem* should ship it to us along with their two Leica Cameras (without lenses) – marked: "*Tandem* Synchro Service." The length of time involved for this work is approximately ten days.

ON BOOKS by JOHN BROOKS

***COLOUR PHOTOGRAPHY IN PRACTICE.** By D. A. Spencer, Ph.D., F. R. I. C., Hon. F. R. P. S. Pitman Publishing Corp. 394 pages. $8.50.*

Don't let a number of quotations from *Alice In Wonderland,* or a wordy preface mislead you regarding *Colour Photography In Practice.* The author of this color photographer's "Bible" is one of those rare mixtures—a scientist, artist, writer, lecturer, humorist, and entrepreneur—and withal, a sane, well-balanced human being; he has only one bee in his bonnet—color photography. Starting with the second chapter, he goes into the theory of color photography, and with adequate illustrations and experimental references, takes the reader from the additive to the subtractive methods of making color transparencies, and through their reproduction as paper prints in the home darkroom. For a better understanding of commercial requirements, he also discusses the various methods used in making color illustrations.

A past president of The Royal Photographic Society, and the foremost color technician of Kodak, Ltd., Dr. Spencer is also a Leica Photographer in good standing, as evidenced by Plate X, an excellent reproduction of one of his Leica Kodachrome pictures. This no doubt enhances his big camera technique—Plate XI being a first-rate advertising study of "No. 4711 Eau de Cologne," made with an 8″ x 10″ camera, on Dufaycolor. *Colour Photography In Practice* is richly illustrated with color plates which are outstanding examples of the engraver's and color photographer's art, and it is obvious that no pains have been spared in making these the best possible illustrations.

The technical portions of the book, and any thorough book on color photography must be somewhat technical, are written in understandable language accompanied by abundant drawings and graphs. One-Shot and repeating back cameras are discussed and illustrated, as well as separation, mosaic, and tri-pack sensitized material. The thoroughness of this background enables a better understanding of present day processes. The author presupposes a fair knowledge of monochromatic photography, but the beginner with even a limited knowledge will have no difficulty in grasping the full meaning of the text.

The discussions of Ansco Color, Kodachrome, and other tri-pack processes — as well as Dye-Transfer, Carbro, and Printon printing methods—is authoritative and thorough. The author's detailed instructions on printing places color processing within the reach of any worker. Although the book is not written from the Leica user's point of view, the basic principles given are applicable to color photography with 35mm. cameras, as well as with "quarter-plate" and larger equipment.

The third edition has been thoroughly revised, largely rewritten, and enlarged. Technical developments have been brought up to date, and there is a new chapter on "The Modern Theory of Three-Colour Photography." The chapter on lighting, which Dr. Spencer has thoughtfully included, is excellent. Thoroughly grounding his reader in the theory of color photography, and its limitations, he sheds "new light" on this tricky subject, so that lighting for color need no longer be feared.

ON FLASH by HAROLD LOW

The recent election campaign in New York's 20th district provided an opportunity for the "real news shot" I had been wanting to get with my Leitz Flash Unit. Taking one shot of each "personality" right away (to have something on the record), I then bided my time until the right expression or a typical gesture was forthcoming. For example, there had been plenty of pictures of F. D. R., Jr., smiling, but I waited almost ten minutes to get one where he resembled his father while showing a serious expression.

On an assignment of this kind, it is a good idea to have all the calculations for flash exposure written on a slip of paper, first, because if you have to go through a series of mathematical computations every time a good picture comes along—you won't catch much action. I find it best to use a lens opening of F:8 whenever possible, and to change my exposure time by changing the shutter speed; for while you can alter your shutter speed with eyes closed —trying to change the lens stop without looking produces results that will amaze (but not please) you. (Exception: the Summarex F:1.5, which has click stops.)

When there is plenty of light for focusing, I use the range finder, but more frequently I guess the distance, and without taking my eye from the view finder, I push the focusing lever to the position I "assume" to be correct. When the focusing lever of the Elmar 50mm. lens shows 6 o'clock, the distance in focus will be 50mm., and with a little practice you will soon find out how far you must push the lever either side for every meter. Since I keep my lens stopped down to F:8, this guardian angel of the Leica Photographer, depth of field, takes care of the smaller errors in focusing.

STOP PRESS

CONVERSION COSTS. We are pleased to announce that we are now able to undertake the conversion of any Model IIc Leica Camera into the Model IIIc. The price for this work is $96.00, which is only $8.50 more than the difference in price between the two post-war models of the Leica Camera. We would request any Leica owners who desire this conversion service to consult their local Leica Franchised Dealer, who will ship customers' cameras to us on an advised schedule; this will avoid undue delay. Please do *not* ship your IIc cameras to us directly, but only through your Leica Dealer.

This latest conversion service applies *only* to the Model IIc; we are unable to undertake any conversion service to any pre-war models of the Leica Camera, owing to the lack of essential conversion parts.

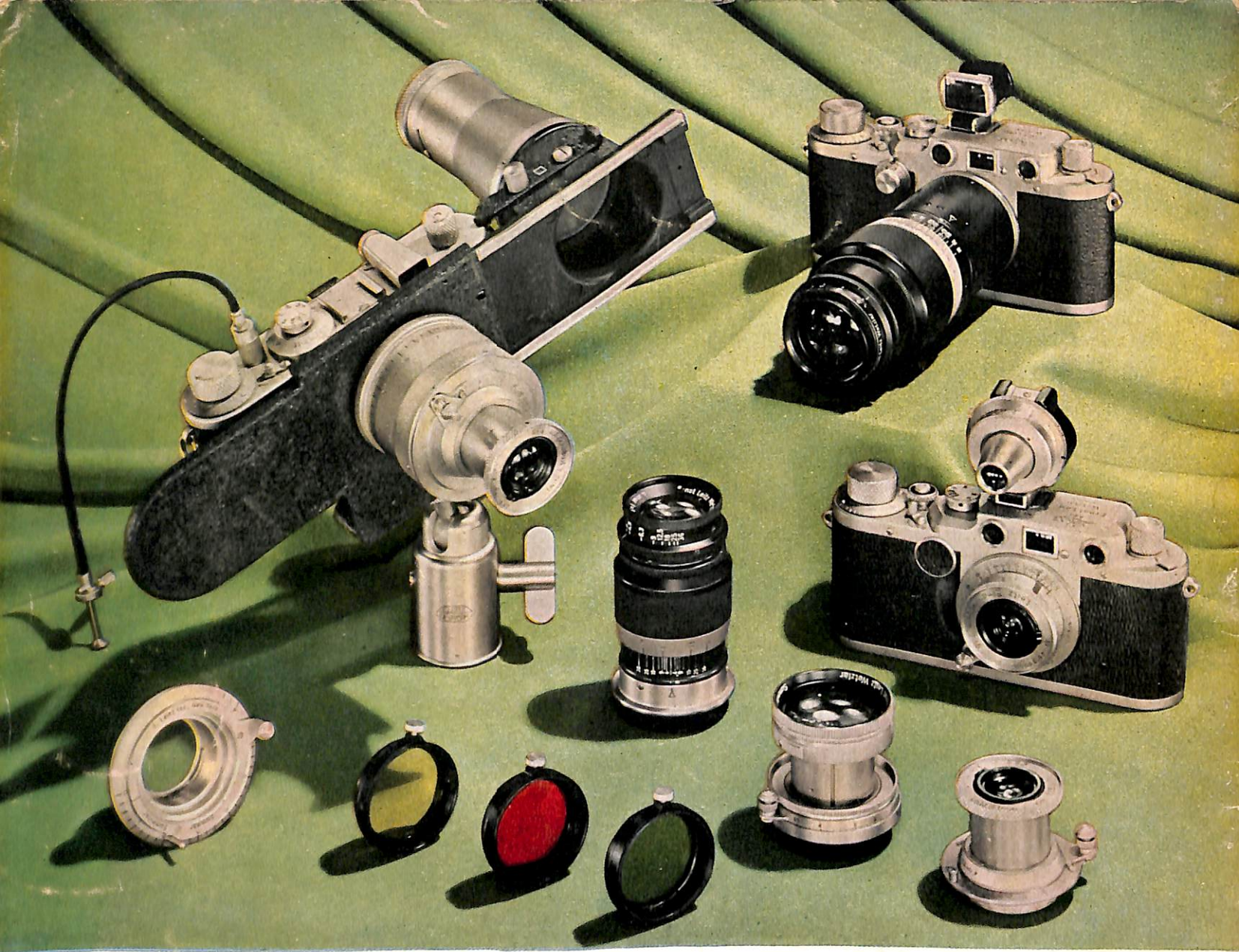
THIS COLOR QUESTION. One of the foremost color film physicists in America remarked to us the other day, "The more I think I know about color film, the less I find I really do know." The manufacturers of color film are constantly striving to improve the quality and to maintain the correct color balance of their color film, and considering that commercial production of the two leading tri-pack 35mm. color films began only 12 to 13 years ago, it is amazing that the present standards are so high.

It should be remembered, however, that color film is still, more or less, being experimented with, and that any change in the "balance" of a color film emulsion, no matter how slight, will have an effect on the corresponding correction filters.

Our research physicists in both Wetzlar and New York, who were first in the field with high-quality optically ground filters of solid, dyed-in-the-mass glass, point out that after sixty years of commercial production all present day monochrome emulsions are stable, and that filter characteristics for monochrome film have also become "set": on the other hand, however, the characteristics of filters for color film must be changed with every slightest variation in the formula of the color film emulsion.

The production of new, dyed gelatin filters for each change in emulsion characteristic (often unannounced to the general public) is a relatively simple matter. Moreover, any gelatin filter, cemented between glass or not, has a fairly short life and is subject to progressive fading—depending on its use and the relative humidity of the atmosphere. Because of this inherent weakness, and because gelatin filters are inexpensive, it is preferable to replace one's complete filter kit for color film from time to time, rather than to risk unbalance in color shots.

But, any change in the characteristics of a solid, dyed-in-the-mass glass is complex, requiring a change in the constituent metallic salts. The Leitz types of dyed-in-the-mass glass filters were originally designed for the standard types of orthochromatic and panchromatic emulsions with known characteristics, and these filters are at all times to be preferred to any mounted gelatin type for monochrome work. Until further notice, however, we are discontinuing all of our Type "A" Kodachrome filters, pending further research work into specific glass sorts for this particular filter.



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